

FIG. 1 is a block diagram of a network architecture. The diagram shows a PSTN (Public Switched Telephone Network) and a DATA NETWORK. The PSTN includes a central E-ISUP (Enhanced Intelligent Network) block (20) with nodes A and B (24). The DATA NETWORK includes a central STP (Session Transfer Point) block (27) and a CCN (VSP) (Content Network/Voice Service Provider) block (26). The network is connected to various devices including a Phone (10), a Computer (4), an IVR (Interactive Voice Response) (28), a CP (Content Provider) (8), an AS (Application Server) (14), and a database (30). The network is also connected to a central switch (6) and a central router (12).

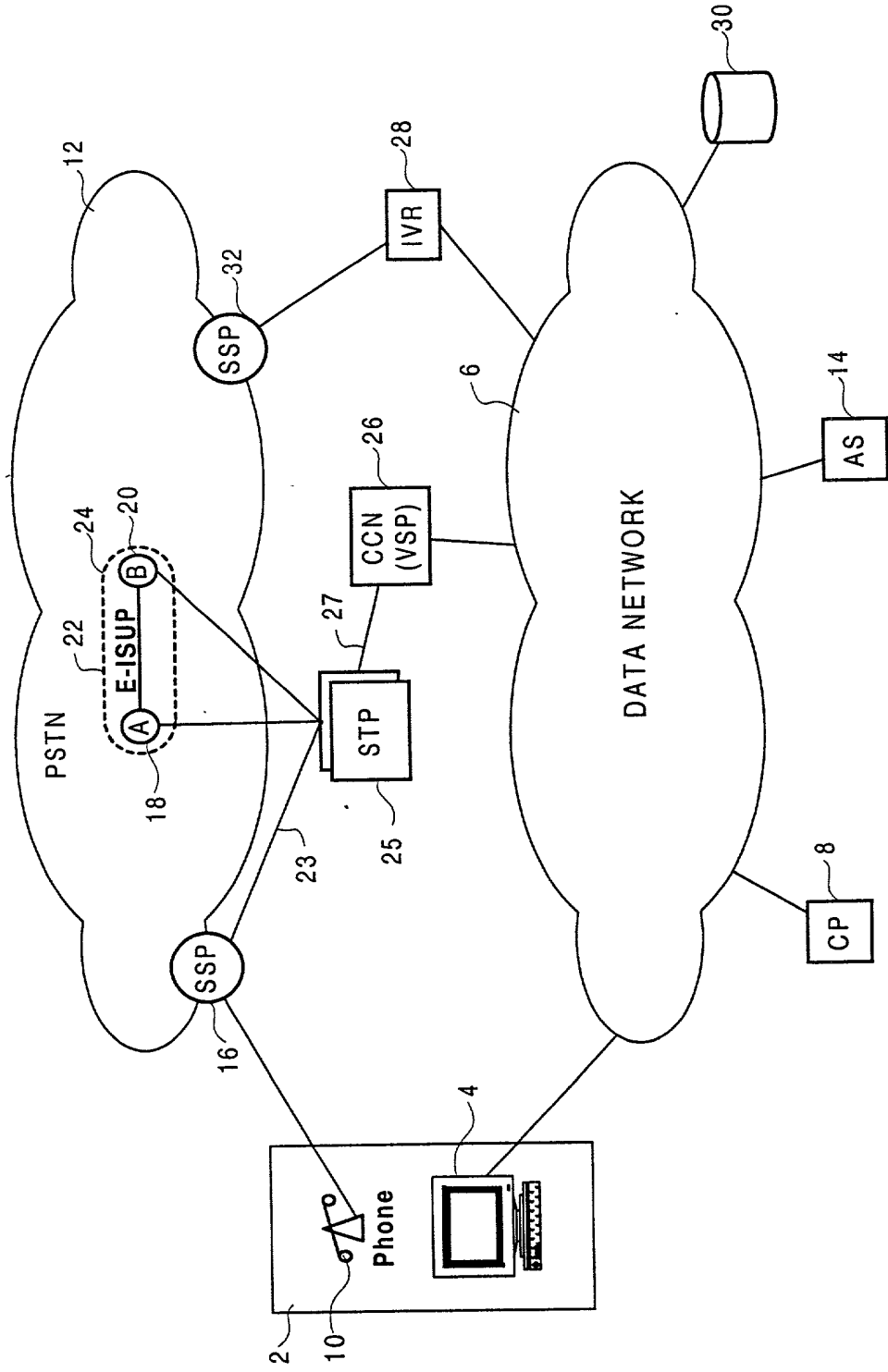


FIG. 1

FIG. 2a is a sequence diagram illustrating a call setup process between a mobile station (10) and a network (14). The network includes a Core Network (CCN) (VSP) (26), a Service Switching Point (SSP) (32), and an Intelligent Network (IN) (14). The IN includes an Authentication Server (AS) (14), a Call Processor (CP) (8), and an Intelligent Network (IN) (14). The mobile station (10) sends a Request Message (User ID, Content ID) (50) to the SSP (32). The SSP (32) sends a Demand ("please input telephone number") (52) to the CP (8). The CP (8) sends a Response (User DN) (54) to the SSP (32). The SSP (32) sends an Authenticate (User ID, User DN, Content ID) (56) to the AS (14). The AS (14) sends a Query (User DN) (58) to the CP (8). The CP (8) sends a Resp. (User DN) (60) to the AS (14). The AS (14) sends an Authorization (62) to the CP (8). The CP (8) sends an Authenticate (User ID, Content ID, OK) (64) to the SSP (32). The SSP (32) sends an ISUP-IAM [DN=IVR DN; CIC=E-ISUP] (70) to the CCN (VSP) (26). The CCN (VSP) (26) sends an ISUP-IAM (72) to the SSP (32). The SSP (32) sends an ISUP-ACM (74) to the CCN (VSP) (26). The CCN (VSP) (26) sends an ISUP-ACM (76) to the SSP (32). The SSP (32) sends an ISUP-ANM (78) to the CCN (VSP) (26). The CCN (VSP) (26) sends an ISUP-ANM (80) to the SSP (32). The SSP (32) sends a Set Up (75) to the CCN (VSP) (26). The CCN (VSP) (26) sends an Alert (76) to the SSP (32). The SSP (32) sends a Connect (79) to the CCN (VSP) (26). The CCN (VSP) (26) sends a Call Complete (83) to the SSP (32). The SSP (32) sends a Call (User DN, CIC=E-ISUP) (84) to the CCN (VSP) (26).

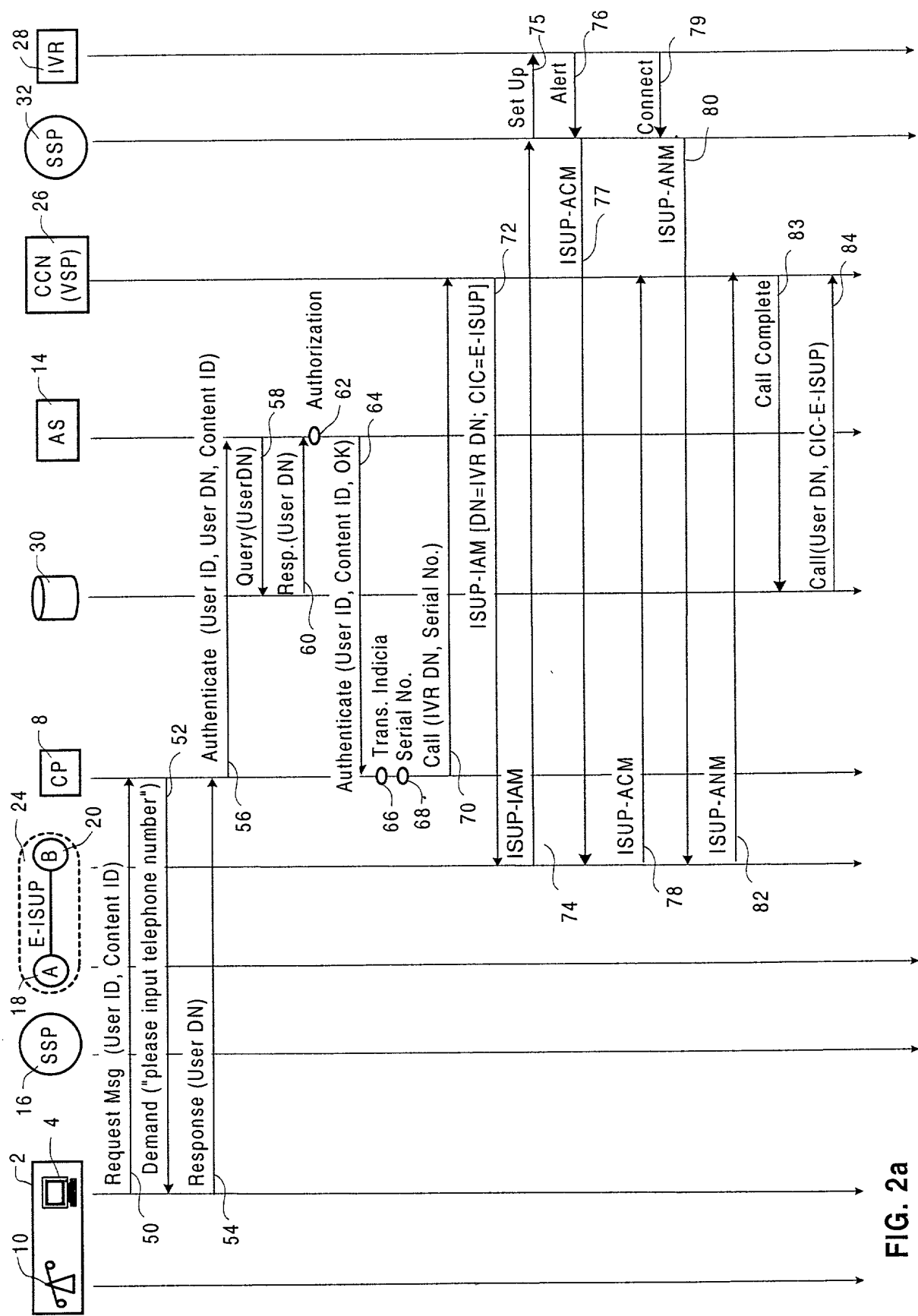


FIG. 2a

FIG. 2b is a sequence diagram illustrating a call setup and announcement process. The diagram shows the interaction between a User Equipment (UE) 10, a Service Switching Point (SSP) 4, an E-ISUP gateway 16, a Call Processor (CP) 8, an Application Server (AS) 14, a Call Control Network (CCN) 26, a Service Switching Point (SSP) 32, and an Interactive Voice Response (IVR) 28. The process begins with the UE 10 sending an "Off Hook" signal to the SSP 4. The SSP 4 then sends an ISUP-IAM message to the E-ISUP gateway 16. The E-ISUP gateway 16 sends an ISUP-ACM message to the CP 8. The CP 8 sends an ISUP-ANM message to the AS 14. The AS 14 sends an ISUP-IAM message to the CCN 26. The CCN 26 sends an ISUP-RLC message to the SSP 32. The SSP 32 sends an ISUP-RLC message to the IVR 28. The IVR 28 sends an "Ack." message to the SSP 32. The SSP 32 then sends an "Announce(Trans. Indicia)" message to the CCN 26. The CCN 26 sends an "Announce(Trans. Indicia)" message to the AS 14. The AS 14 sends an "Announce(Trans. Indicia)" message to the CP 8. The CP 8 sends an "Announce(Trans. Indicia)" message to the E-ISUP gateway 16. The E-ISUP gateway 16 sends an "Announce(Trans. Indicia)" message to the SSP 4. The SSP 4 sends an "On Hook" signal to the UE 10. The UE 10 then sends a "Msg (Trans. Indicia)" message to the SSP 4. The SSP 4 sends an ISUP-REL message to the E-ISUP gateway 16. The E-ISUP gateway 16 sends an ISUP-REL message to the CP 8. The CP 8 sends an ISUP-REL message to the AS 14. The AS 14 sends an ISUP-REL message to the CCN 26. The CCN 26 sends an ISUP-REL message to the SSP 32. The SSP 32 sends an ISUP-REL message to the IVR 28. The IVR 28 sends a "Disconnect" message to the SSP 32. The SSP 32 then sends an "Ack." message to the IVR 28. The process ends with the UE 10 sending a "Content" message to the SSP 4.

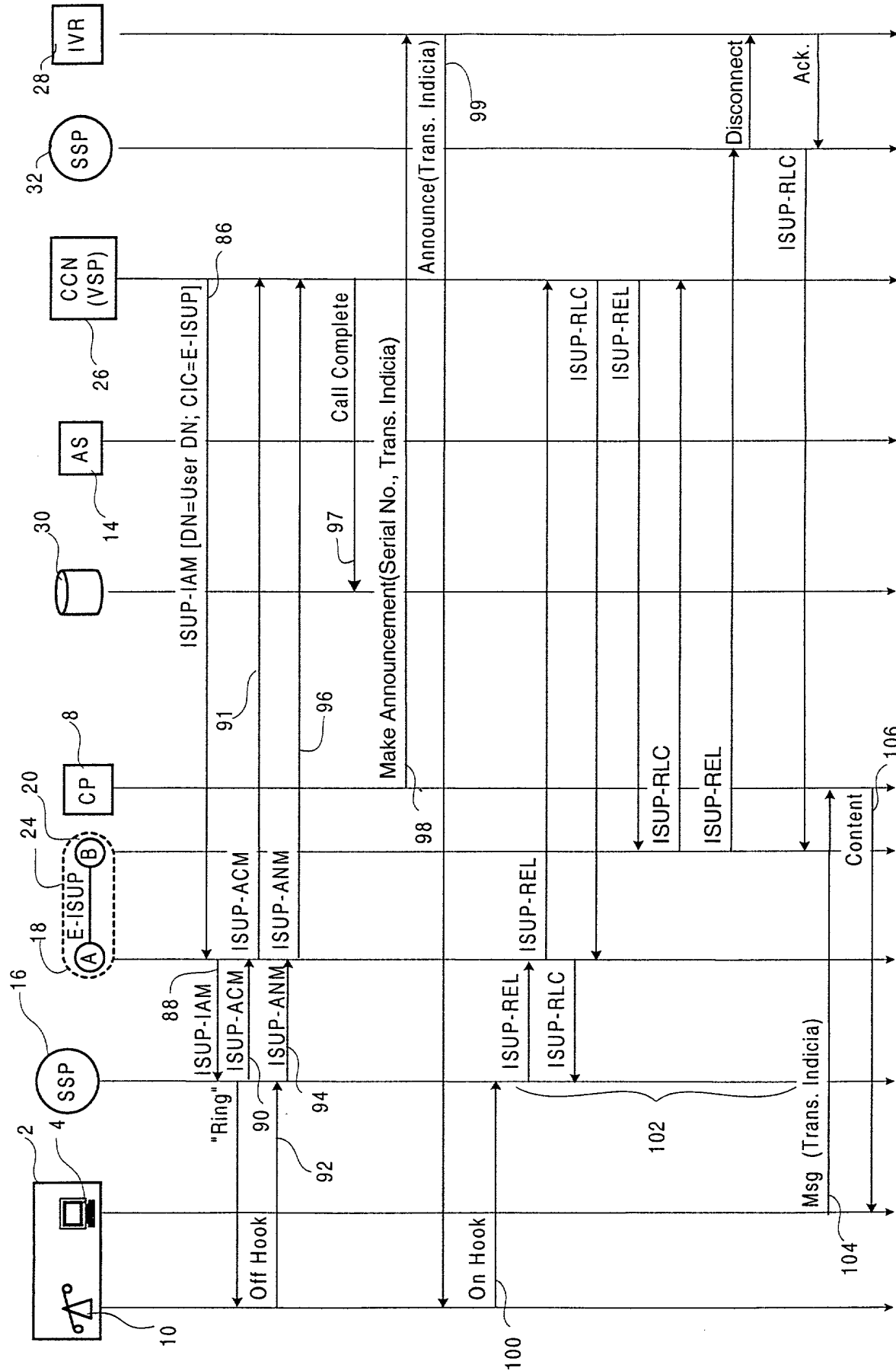


FIG. 2b

FIG. 3 is a sequence diagram illustrating a process involving a Probe User PC (4) and a CP (8). The process includes steps such as Msg (Trans. Indicia) 104, Encryption Applet 108, User PC ID' 110, Generate Encryption Key 114, Encrypt Data Content 116, Encrypted Content 118, Generate Decryption Key 120, and Decrypt Content 122.

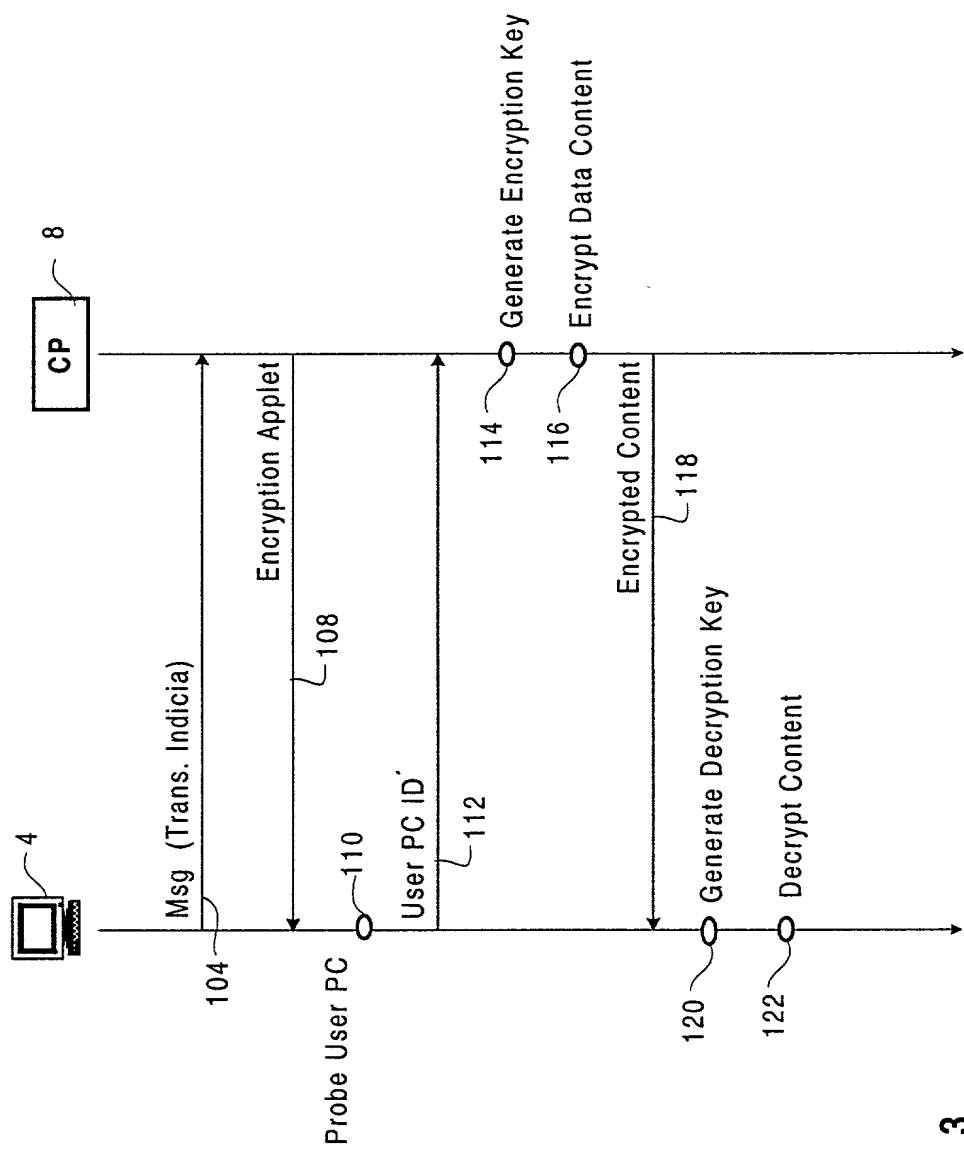


FIG. 3

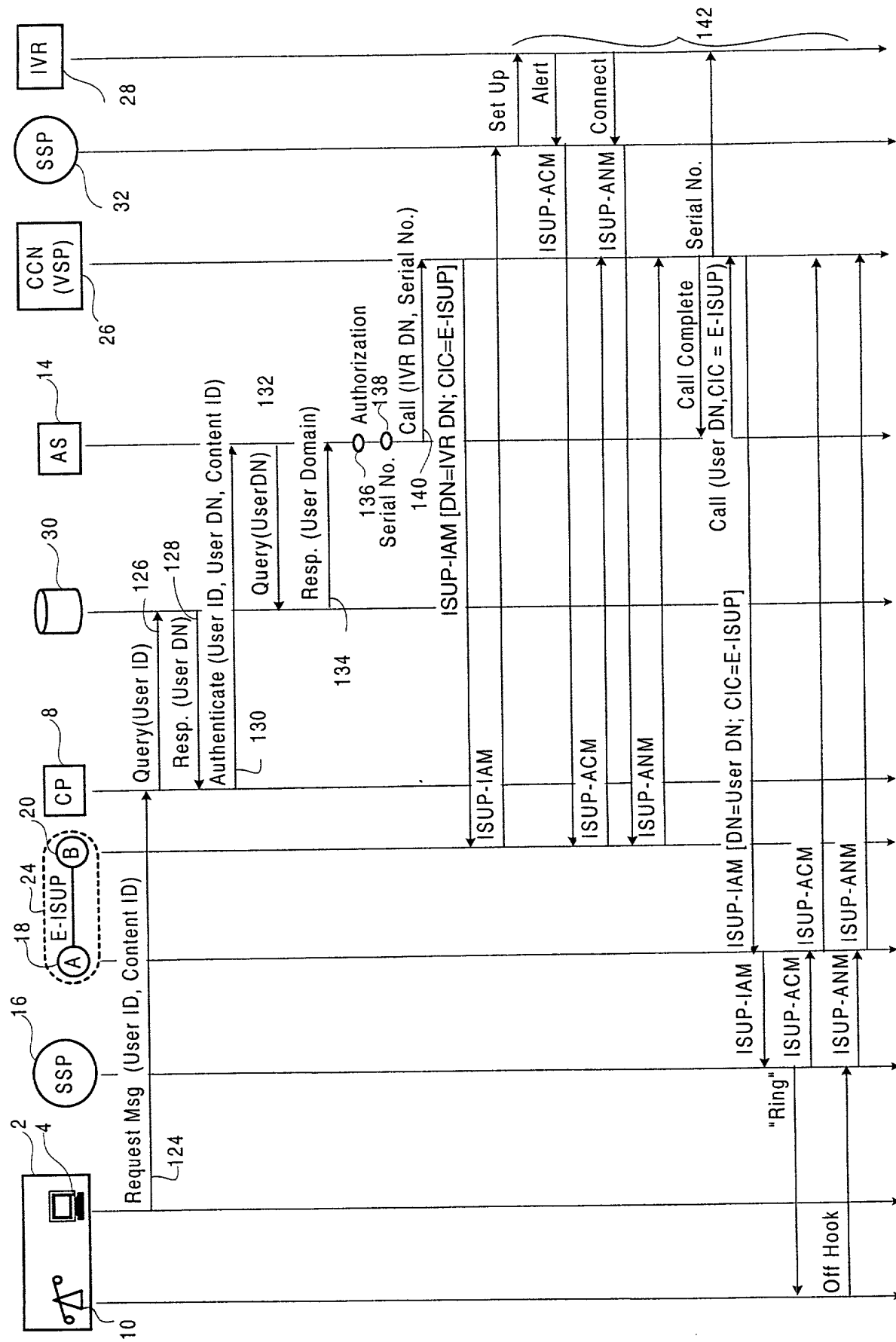


FIG. 4b is a sequence diagram illustrating a process flow involving a User Equipment (UE) 10, a Core Network (CN) 14, a Service Set Provider (SSP) 16, a Content Network (CCN) 26, and an Internet Video Relay (IVR) 32. The process involves a challenge phase (144), a response phase (150), a play announcement phase (158), and a disconnect phase (160). The process also includes a delivery control phase (168) and a delivery control phase (166).

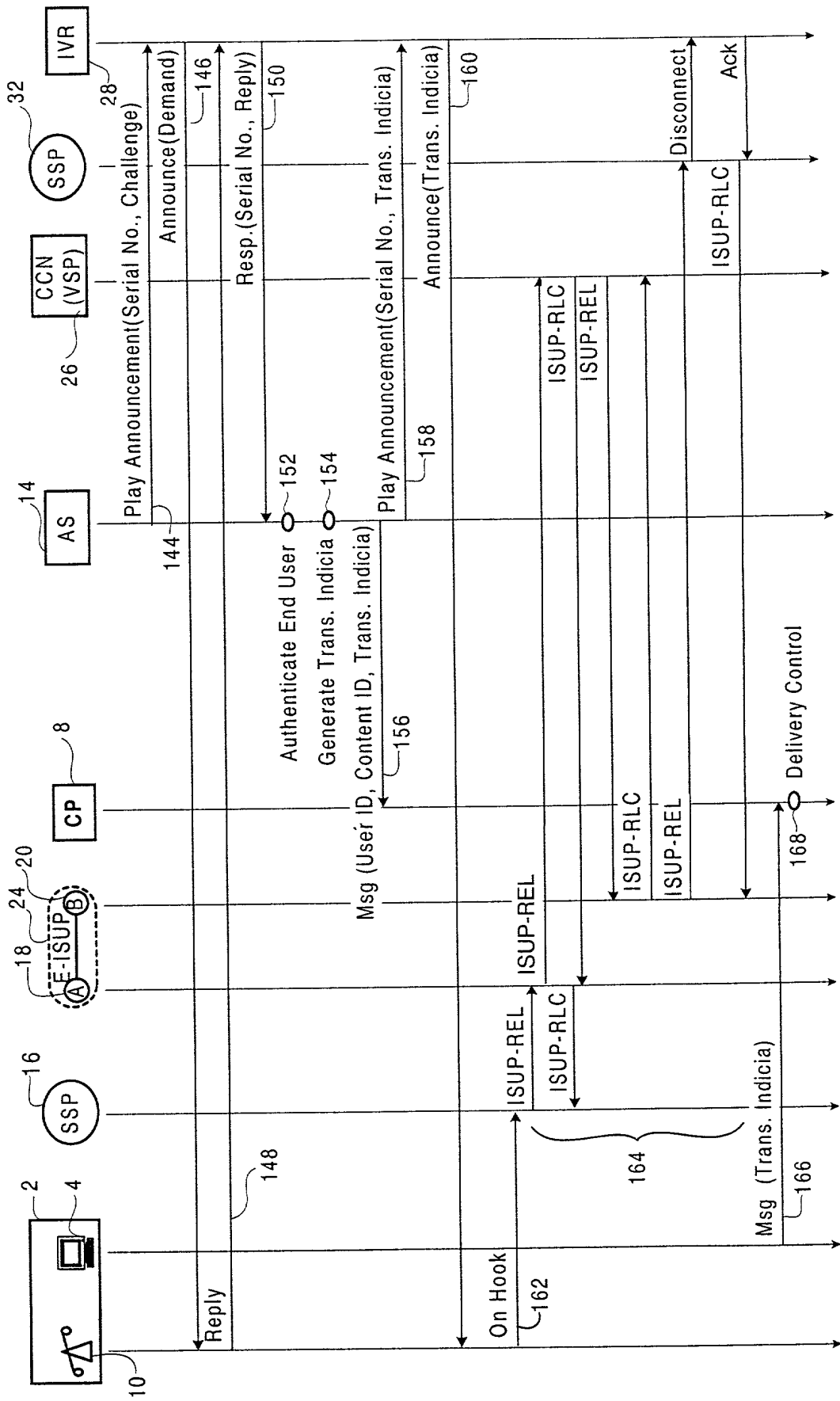


FIG. 4b